



**D I S C U S S I O N**



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## Financial Markets: Shock Absorbers or Shock Creators?

Recent history has evidenced many crises, or near-crises, in financial markets around the world. It is tempting to say that the frequency of such events has been increasing. There have been banking crises, currency crises, stock market crashes and overall volatility of stock markets, huge sudden increases in credit spreads, and collapses or near-collapses of individual financial institutions with potential threats to the balance of the financial system as a whole. It has been suggested that the increase in the number of these problem episodes has come hand in hand with the increasing disintermediation on the one hand and globalization of the financial markets on the other. Recently, the U.S. corporate scandals have added a whole new dimension to the debate.

These experiences have led many to criticize the market-based financial system. It has been asked whether markets create entirely new shocks that may have adverse consequences for the real economy, or whether they exacerbate shocks that initiate from the real sector. Are

these shock creation and amplification effects so bad that they override any benefits of the free financial markets, and might thereby justify much stricter controls on the workings of the markets than currently applied?

I will try to address these concerns by going back to the basics of what we have been taught about the role of free financial markets. Although there is much to be learnt from the recent problems, we should neither lose sight of the positive development simultaneously taking place in the fundamental functions that the markets provide.

### Markets with full-information

#### Securities markets and risk-sharing

Academic research in financial economics based on the so called neoclassical paradigm sees the role of financial markets as a shock absorber, not as a shock creator. In this theoretical framework all shocks in the economy

## DISCUSSION

originate from the real sector so that securities prices merely reflect them. Moreover, efficient price formation in freely functioning markets ensure that information of these shocks is promptly spread throughout the economy to facilitate efficient allocation of production resources. Further, free trading in securities enables the sharing of risks through diversification and hedging, so that shocks can be born by many. This risk-sharing function of the financial markets is their very role as a shock absorber. So, we have all reasons to believe that the recent developments in the global financial markets have increased our opportunities to risk-sharing, and so the markets have strengthened their role as a shock absorber.

*Surprisingly, an interesting recent example of this appears to be the case of Enron. Although the problem was that most things in connection with Enron did not work as they were supposed to do, one thing that seems to have done quite well is the relatively new market for credit derivatives. After learning from some early problems related to missing documentation standards the market for credit derivatives continued its strong growth in the past few years. Enron seems to have been one of the most popular reference assets meaning that many who had Enron as their credit counterparty sought hedge from others against its default. Reports from the market suggest that contract settlements after Enron's collapse have worked fairly well. To put it briefly, it seems that the credit derivatives market has helped to efficiently spread Enron risk, which in turn may have con-*

*tributed to the fact that the solvency of no single financial institution was directly threatened by Enron's collapse. Admittedly, though, as a result of the wider use of credit derivatives and securitisations it is increasingly hard to track who eventually holds credit risk. This is certainly so when credit risk partly ends up outside regulated market institutions, but it might have to be accepted as a natural side-effect of a better diversification of credit risk.<sup>1</sup>*

An important thing to note is that it is often hard to prove what good markets have accomplished whereas it is rather obvious when they fail. Take, for instance, derivatives in general. The basic theory again argues that derivatives greatly complement the opportunities to hedge and hence spread risks. When they succeed in this, nothing visible happens because they are there in the first place to prevent single big losses. On the other hand, when a rogue trader takes big bets and loses, it is easy to blame the tools (derivatives) for enabling and attracting this kind of behaviour. So, even though the supply of modern financial instruments may contribute to the likelihood of such excesses, we may easily fail to see the right balance between the benefits and disadvantages of these tools.<sup>2</sup>

### Informational efficiency of securities markets

Another important lesson from the basic theory is that volatility, even increased volatility, of securities prices need not in itself mean that the financial markets create or amplify shocks. First,

<sup>1</sup> There have been demands to increase the transparency of non-regulated entities such as hedge funds. Nonetheless, care should be taken when considering new regulatory measures on their part. Non-regulated entities provide important liquidity services in the market, which might be jeopardized when effectively imposing new operating costs on them.

<sup>2</sup> As an other example, hedge funds got much of the blame for contributing to the Asian crisis. Nonetheless, evidence suggests that, if anything, they rather functioned as shock absorbers (see Brown, Goetzmann and Park, 1997).

increased transparency in the market (please, forget Enron for a moment!) in the form of more efficient flow of information thanks to technological advances can lead to sharper and more timely price reactions. So, the reason for more volatility need not be in the irrationality of prices but in their greater informativeness. Secondly, corporates and their investments may simply have become riskier. Again, if this is the case, we should not blame the securities markets for merely reflecting these risks as greater price volatility.

### **Markets with asymmetric information**

More recent research in financial economics stresses the importance of various market frictions, often stemming from information asymmetries (eg, lack of transparency) between various market participants. Unlike the pure neoclassical approach, this paradigm has raised the possibility that financial markets in themselves may convey and amplify shocks and perhaps even create new ones. Whereas these theories do not refute the basic risk-sharing function of the markets, they do make the question more complicated and raise the possibility that certain public sector involvement (be it regulation, supervision, or outright intervention) can, under certain circumstances, be beneficial.

### **The role of financial intermediation**

In the pure neoclassical paradigm with full information and no market frictions, there is no special role for banks (or financial intermediaries in general). Hence, their emergence and existence is seen as an institutional response to the very problems created by informational asymmetries and other frictions in financing.

However, the fragile balance sheet structure of a traditional bank, stemming from the transformation of liquid demand deposits to illiquid long-term loans, makes them prone to contagious bank runs. These are a classic case of a systemic event, threatening the well-functioning of the entire financial system, and are therefore a central reason for why public sector safety nets such as deposit insurance and banking regulation and supervision have been introduced world-wide.

Before the liberalization and deregulation of financial markets in the recent decades, banks were relatively well protected from competition so that it was rather easy for them to build sufficient buffers with interest rate margin income to account for credit losses. In this kind of world, banks were the primary institutions to carry economic risks and absorb shocks. But they even had no major incentives for taking excessive risks because these might have threatened their steady future margin income. At the same time the role of securities markets in providing risk-sharing on a more decentralized basis was relatively minor.

After financial markets' liberalization banks faced increasing competition which resulted in tighter margins from traditional bank financing. This forced banks to seek new sources of revenue, often subject to risks that they did not quite grasp in the new environment. With hindsight, there was also lack of understanding of the new situation among bank regulators and economic policy makers. The well-known problems with banks around the world, which followed, eg, the U.S. Savings and Loans crises and Scandinavian and Asian banking crises, led to new developments in international banking regulation and supervision that still continue. Also, banks themselves have become

## DISCUSSION

much more aware of the risks they take and significant improvements in their risk management and internal capital allocation systems have taken place. Further, new financial innovations are helping banks to spread risks more efficiently.<sup>3</sup> Nonetheless, the relative role of banks has diminished and, on the surface, the world now looks a little bit more like the one in the pure neoclassical model in which securities markets play the major role. Unfortunately, this does not mean that severe problems stemming from informational asymmetries and other market frictions would have ceased to exist.

### Some lessons from the recent corporate scandals

Even with the diminishing role of banks the financial system will in the foreseeable future hardly converge to the full-information market-based system in which all individuals and firms would directly deal with each other. Various intermediaries will still be needed in the market. We just do not yet very well understand how these institutional structures affect asset prices (see Allen, 2001). Indeed, the recent accounting related problems, and the consequent inflated asset prices, which apparently resulted from a complex mix of incentive problems, clearly show how important this understanding would be.

*One of the key agency relationships in the markets is the role of corporate management in channeling investors' funds to productive business investments. It is a well-known problem how managers could be disciplined to work in the best interest of the investors and not to pursue their own, possibly deviating, goals. Mana-*

*gerial stock options are in principal a good innovation to try to solve this potential conflict. It was also known that, as a side-effect, options could spur excessive risk-taking. What went wrong, though, was perhaps too mundane a possibility to have been generally foreseen by finance experts. Options, in some cases, gave a huge spur to start cooking the books. What might have helped in better predicting these events is the Beckerian economics of crime and punishment. Another lesson is that accounting matters: asset prices appeared to be much more strongly linked to accounting information than the most orthodox proponents of efficient markets ever would have thought.*

Will financial innovations and modern information technology transform markets ever closer to the full-information ideal, or have they already done so? Again, this kind of optimism suffered a blow from the recent experiences with corporate practices. They reminded us of the fact that information need not be the same as knowledge or understanding. What seems to be equally important as the availability of information is that a sufficient number of market participants have an incentive to truly analyze and act on that information. It is striking in the case of Enron and the others that even the big institutional investors and other large shareholders seem to have failed in their monitoring of these companies. This is particularly worrisome because they, if anybody, should have sufficient incentives to do so. Institutional investors are the ones who increasingly represent individual investors to whom it may not make much sense to spend the resources to monitor large corporations. Therefore, finding ways to strengthen

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<sup>3</sup> Although apparently much of the financial innovation is also aimed at more questionable activities such as regulatory arbitrage.

the shareholder control by institutional investors of corporate managements is crucial to the well-functioning of markets. To start with, how are we to ensure the integrity of the monitoring function if one big financial conglomerate or a universal bank may have it all – corporate lending and underwriting, fund management and investment analysis – under one and the same umbrella?<sup>4</sup>

*Another striking thing that the past episode has highlighted is the lack of independent analysis available to investors. It is difficult to grasp why there was no more sound suspicion on investors' side of the integrity of analysis provided by institutions whose primary economic interest was to spur trading. One reason of course could be that analysis produced along with other financial services was cheap to the customer. Still, investors could also look into the mirror for being too credulous.*

There are lessons to the regulators as well. The regulatory approach to improving transparency is often to impose new disclosure requirements. These may not, however, lead to the desired goal of more market discipline if no one has proper incentives to act on the disclosed information. It might be more efficient to contribute to such incentive structures in the market, which would make corporations voluntarily improve their transparency (see also footnote 4).

Finally, there is the danger, as has been pointed out by the Bank for International Settlements chairman Andrew Crockett, that authorities' responses to the recent corporate scandals could bring about too much new regula-

tion. With regard to this, perhaps the excesses of the recent past should be taken more as part of an ever-continuing trial and error process of financial development. The key force to cope with emerging problems like these is the self-correcting ability of free markets. There are already signs of that force in work.

## Conclusions

Modern financial markets are providing increasingly diversified opportunities for financing and risk-sharing. When economies are hit by external shocks, these functions help to absorb them. Indeed, many observers have paid attention to the surprising resilience of the global financial system in coping with the turmoil of the past years.<sup>5</sup> On the other hand, financial innovations also appear to be connected to episodes in which various excesses in the markets take place, hence potentially compounding the instability and contributing to distortional real effects. Nonetheless, it is hard to point out situations in which financial markets would have been the primary cause of a shock. Like in most currency crises or even in the recent stock market bubble there have been fundamental economic factors behind. Therefore the main concern appears to be whether markets can sometimes amplify the original shocks and whether something should be done about it. What is the role of regulators in improving the structure of the system and how much should be left to the self-correction of markets? Although finding the right answers to these questions is not easy, we should not forget that the long-term trend in financial development has been quite posi-

<sup>4</sup> Kroszner and Rajan (1997) argue that financial institutions may voluntarily adopt organizational structures to commit to good practices (i.e., avoid internal conflicts of interest). Nonetheless, in less competitive markets such self-regulation may not work.

<sup>5</sup> See, e.g., the Bank for International Settlements press release from June 8, 2002 ([www.bis.org](http://www.bis.org)).

## DISCUSSION

tive.<sup>6</sup> The recent experiences should be taken as part of a continuous learning process through which the system could become increasingly resilient. ■

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<sup>6</sup> Evidence supports the view that economic growth is positively related to the degree of financial development (see, e.g., Khan, 2000).